

## CLAIMS

What I claim as my invention is:

1. A method for studying whole blood clotting comprising the following steps: irradiating a clotting specimen with light and measuring the light reflected into the hemisphere of the irradiating beam; dividing the time course of reflected light intensity into distinct regions; fitting each region with an appropriate mathematical formula; using the parameters obtained from curve fitting to assign values to that specimen.
2. The method as claimed in claim 1 wherein monochromatic light is used to irradiate the specimen.
3. The method as claimed in claim 1 wherein broadband light is used to irradiate the specimen.
4. The method as claimed in claim 3 wherein the reflected light is dispersed into its spectrum, the time course at each wavelength is divided into distinct regions, each region at each wavelength is fit with an appropriate mathematical formula, and the parameters obtained assigned as values for the specimen.
5. The method as claimed in claim 3 wherein three of the regions of the time course correspond to a monotonic decrease, a sigmoidal increase, and a linear region.
6. The method as claimed in claim 3 wherein the monotonic decrease is fit with a double

exponential function, the sigmoidal increase is fit with the logistic function, and the linear region is fit with the formula for a straight line.

7. The method as claimed in claim 3 wherein the invention is used to measure the effects of drugs on clotting.

8. The method as claimed in claim 3 wherein the invention is used to measure the effects of non-steroidal anti-inflammatory drugs on clotting.

9. The method as claimed in claim 3 wherein the invention is used to assess clotting as an element of disease.

10. The method as claimed in claim 3 wherein the invention is used to aid in the diagnosis of Alzheimer's disease.